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**DECLARATION FOR UTILITY OR  
DESIGN  
PATENT APPLICATION  
(37 CFR 1.63)**

☐ Declaration Submitted with Initial Filing

OR

☐ Declaration Submitted after Initial Filing (surcharge (37 CFR 1.16 (e)) required)

Attorney Docket Number	MOB 152 DIV (2)
First Named Inventor	Alexander Steinbuechel
<b>COMPLETE IF KNOWN</b>	
Application Number	09 779,427
Filing Date	February 8, 2002
Group Art Unit	1636
Examiner Name	Gerald G. Leffers

**As a below named inventor, I hereby declare that:**

My residence, mailing address, and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

METHODS OF PRODUCING POLY(HYDROXY) FATTY ACIDS IN BACTERIA

(Title of the Invention)

the specification of which

☐ is attached hereto

OR

☒ was filed on (MM/DD/YYYY)

02/08/2001

as United States Application Number or PCT International

(if applicable).

Application Number

09 779,427

and was amended on (MM/DD/YYYY)

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment specifically referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or 365(b) of any foreign application(s) for patent or inventor's certificate, or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or any PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application Number(s)	Country	Foreign Filing Date (MM/DD/YYYY)	Priority Not Claimed	Certified Copy Attached? YES NO
P 44 33 1347	Germany	09/16/1991	<input type="checkbox"/>	<input type="checkbox"/>
PCT DE 95 01270	PCT	09/15/1995	<input type="checkbox"/>	<input type="checkbox"/>

☐ Additional foreign application numbers are listed on a supplemental priority data sheet (PTO SB-28B) attached hereto.

I hereby claim the benefit under 35 U.S.C. 119(e) of any United States provisional application(s) listed below.

Application Number(s)	Filing Date (MM/DD/YYYY)

☐ Additional provisional application numbers are listed on a supplemental priority data sheet (PTO SB-28B) attached hereto.

077542 00143

Please type a plus sign (+) inside this box → ☐

PT-158 (Rev. 11-97)

Approved for use through fiscal year 2002. OMB 0401-0002

U.S. Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Project of February 1997, this form is required to file a patent application and to file a continuation application.

## DECLARATION — Utility or Design Patent Application

Direct all correspondence to:

☐ Customer Number  
or Bar Code Label



OR ☒

Correspondence address below

23579

PATENT TRADEMARK OFFICE

Name Patrea L. Pabst

Address Holland & Knight LLP

Address Suite 2000, One Atlantic Center, 1201 West Peachtree Street, N.E.

City Atlanta

State GA

ZIP 30309-3400

Country USA

Telephone (404) 817-8473

Fax (404) 817-8588

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

NAME OF SOLE OR FIRST INVENTOR :

☐ A petition has been filed for this unsigned inventor

Given Name  
(first and middle [if any]) Alexander

Family Name  
or Surname Steinbuechel

Inventor's  
Signature

Date

Residence: City Altenberge

State

Germany  
Country

Citizenship Germany

Mailing Address Ronmenthal 27

Mailing Address

City Altenberge

State

ZIP D-48341

Country Germany

NAME OF SECOND INVENTOR:

☐ A petition has been filed for this unsigned inventor

Given Name  
(first and middle [if any]) Mathias

Family Name  
or Surname Liebergessel

Inventor's  
Signature

Date

Residence: City West Des Moines

IA  
State

US  
Country

Citizenship Germany

Mailing Address 1695 South 60th Street

Mailing Address



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Please type a plus sign (+) inside this box → ☐PTO/SB/02A (11-00)  
Approved for use through 10/31/2002 OMB 0651-0032

U.S. Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE

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## DECLARATION

## ADDITIONAL INVENTOR(S)

## Supplemental Sheet

Page 1 of 1

<b>Name of Additional Joint Inventor, if any:</b>		<input type="checkbox"/> A petition has been filed for this unsigned inventor	
Given Name (first and middle [if any])		Family Name or Surname	
Henry		Valentin	
Inventor's Signature		Date	
Residence: City	Chesterfield	State	MO
Country	USA	Citizenship	Germany
Mailing Address 873 M Foxsprings Drive			
Mailing Address			
City	Chesterfield	State	MO
ZIP	63017	Country	USA
<b>Name of Additional Joint Inventor, if any:</b>		<input type="checkbox"/> A petition has been filed for this unsigned inventor	
Given Name (first and middle [if any])		Family Name or Surname	
Andreas		Pries	
Inventor's Signature		Date	
Residence: City	Bad Reichenhall	State	
Country	Germany	Citizenship	Germany
Mailing Address Keltenring 13			
Mailing Address			
City	Bad Reichenhall	State	
ZIP	D-83435	Country	Germany
<b>Name of Additional Joint Inventor, if any:</b>		<input type="checkbox"/> A petition has been filed for this unsigned inventor	
Given Name (first and middle [if any])		Family Name or Surname	
Inventor's Signature		Date	
Residence: City		State	
Country		Citizenship	
Mailing Address			
Mailing Address			
City		State	
ZIP		Country	

7-0001-152-010

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

TECH CENTER 1600/2900

Applicants: Alexander Steinbüchel, Mathias Liebergesell, Henry Valentin, and Andreas Pries

Serial No.: 09/779,427

Art Unit: 1636

Filed: February 8, 2001

Examiner: Gerald G. Leffers

For: *METHODS OF PRODUCING POLY(HYDROXY) FATTY ACIDS IN BACTERIA*

Commissioner of Patents and Trademarks  
U.S. Patent and Trademark Office  
P.O. Box 2327  
Arlington, VA 22202

**POWER OF ATTORNEY BY ASSIGNEE OF ENTIRE INTEREST  
AND REVOCATION OF PRIOR POWERS**

Sir:

As owner of the entire interest in the above-identified patent application, as evidenced by the attached Statement Under 37 C.F.R. § 3.73(b), all powers of attorney previously given are hereby revoked and the following attorneys and agents are hereby appointed to prosecute and transact all business in the Patent and Trademark Office connected therewith:

Patrea L. Pabst  
Zhaoyang Li  
Rivka D. Monheit

Registration No. 31,284  
Registration No. 46,872  
Registration No. 48,731

**Please send all correspondence relating to the above-identified patent application to:**

Customer No. 23579  
Patrea L. Pabst  
**HOLLAND & KNIGHT LLP**  
Suite 2000, One Atlantic Center  
1201 West Peachtree Street, N.E.  
Atlanta, Georgia 30309-3400

(404) 817-8473 (Telephone)  
(404) 817-8588 (Fax)

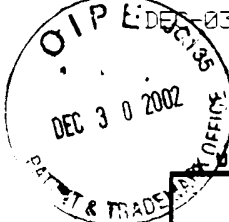
U.S.S.N. 09/779,427

Filed: February 8, 2001

Power of Attorney by Assignee of Entire  
Interest and Revocation of Prior Powers

The undersigned signatory (whose title is supplied below) is empowered to act on behalf of the assignee identified below, and has reviewed all the documents in the chain of title of the above-identified patent application and, to the best of the undersigned's knowledge and belief, title is in the assignee.

**METABOLIX, INC.**By: Oliver P. PeoplesPrinted Name: OLIVER P. PEOPLESTitle: VP R & DDate: DECEMBER 3, 2002



PTO/SB/96 (08-00)  
Approved for use through 10/31/2002. OMB 0651-0031  
U.S. Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

**STATEMENT UNDER 37 CFR 3.73(b)**

**Applicant/Patent Owner:** Alexander Steinbüchel,  
Mathias Liebergessel, Henry Valentin, and Andreas Pries  
**Application No./Patent No.:** 09/779,427 **Filed/Issue Date:** February 8, 2001  
**Entitled:** Methods Of Producing Poly(Hydroxy) Fatty Acids In Bacteria  
Metabolix, Inc. a corporation of the State of Delaware  
(Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is:

- 1. ☒ the assignee of the entire right, title, and interest; or
- 2. ☐ an assignee of less than the entire right, title and interest.  
The extent (by, percentage) of its ownership interest is \_\_\_\_\_ %

In the patent application/patent identified above by virtue of either:

A. ☐ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

OR

B. ☒ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as shown below:

- 1. From BUCK-Werke GmbH & Co. as proprietor of German priority application no. 44 33 134.7 to Monsanto Company, a copy of which is attached.
- 2. From Dr. Andreas Pries as co-inventor and proprietor of foreign filing right of German priority application no. 44 33 134.7 to Monsanto Company, a copy of which is attached.
- 3. From: Monsanto Company To: Metabolix, Inc.  
The document was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

☐ Additional documents in the chain of title are listed on a supplemental sheet.

☒ Copies of assignments or other documents in the chain of title are attached.  
[NOTE: A separate copy (i.e., the original assignment document or a true copy of the original document) must be submitted to Assignment Division in accordance with 37 CFR Part 3. If the assignment is to be recorded in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

DECEMBER 3 2002  
Date

OLIVER P. PEOPLES  
Typed or printed name  
[Signature]  
Signature

VPR & D

Title

Under hour statement: This form is estimated to take 1/2 hour to complete. Time will vary depending upon the needs of the individual case. Any comments or amount of time you are required to complete this form should be sent to the Unit Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231



File UE08BU29255 doc 27 12 1995  
Agreement BUCK/MONSANTO  
P4433134 7/PCT/DE95/01279



Assignment Agreement  
between BUCK and MONSANTO

5

Preamble

- 10 BUCK-Werke GmbH & Co., Geislinger Str. 21, D-73337 Bad  
Überkingen (hereinafter BUCK) are the proprietors of the  
German patent application No. P 44 33 134.7 having the  
title "Verfahren zur Herstellung von Polyhydroxyfettsäuren  
sowie rekombinanter Bakterienstämme zur Durchführung des  
Verfahrens" (Method for producing polyhydroxyfatty acids as  
15 well as recombinant bacterial strains for executing the  
method) (hereinafter DE-BUCK), filed with the German Patent  
Office on September 16, 1994. BUCK is further in possession  
of the right to claim priority based upon the DE-BUCK.
- 20 BUCK have assigned their right to file foreign applications  
to an employed inventor, namely Dr. Andreas Pries, with  
their declaration of release dated June 6, 1995.
- 25 BUCK wishes to assign their rights in the above application  
to the MONSANTO COMPANY, 800 North Lindberg Boulevard, St.  
Louis, Missouri 63167, U.S.A. (hereinafter MONSANTO).
- MONSANTO wishes to acquire the rights in DE-BUCK from BUCK.

1. Assignment of DE-BUCK

30

1. BUCK herewith assigns DE-BUCK to MONSANTO which  
herewith accepts the assignment.
- 35 2. BUCK will make all declarations necessary for the  
transfer of DE-BUCK to MONSANTO.

File UEB/BU29255 doc. 27.12.1995  
Agreement BUCK/MONSANTO  
P4433134 7/PCT/DE95/01279



3. BUCK herewith surrenders any right to use the subject matter of DE-BUCK inside as well as outside the country. In particular, BUCK will not claim any right of prior use vis-à-vis MONSANTO within the meaning of Section 12 (1) German Patent Act (PatG).

The official and attorney's fees of the assignment shall be borne by MONSANTO.

10

2. Assignment of the Priority Right Arising from DE-BUCK

BUCK herewith undertakes to assign the invention and the priority right from the DE-BUCK to MONSANTO. This assignment will be regulated in a separate declaration of transfer to claim the right of priority (Annex A).

15

3. Declaration of Release for deposited Microorganisms

20

BUCK deposited the following microorganisms in the course of DE-BUCK

25

Pseudomonas putida SK 6691  
Alcaligenes eutrophus SK6891

at the DSM in Braunschweig on Sept. 5, 1994 in accordance with the Budapest Treaty on the Acknowledgement of Deposit of Microorganisms for Patent Procedures in order to fulfil the requirements of patent law made to the enabling of the invention on which DE-BUCK is based.

30

The Accession numbers which are mentioned in DE-BUCK are:

Pseudomonas putida SK 6691



[File:UEB\BU29255.doc, 27.12.1995  
Agreement BUCK/MONSANTO  
P4433134 7//PCT/DE95/01279]



BUCK will make a declaration (Annex B) vis-à-vis DSM to the effect that MONSANTO, on the commencement of this agreement, is allowed unrestricted and irrevocable access -  
5 and explicitly also prior to publication of the DE-BUCK - to the above-identified deposited microorganisms whereby MONSANTO obtains possession of samples of the deposited microorganisms.

10 BUCK will make this declaration exclusively in favour of MONSANTO and not in favour of third parties.

BUCK undertakes upon request by MONSANTO to give a declaration vis-à-vis the depositary institution DSM that  
15 the deposits of the above designated microorganisms will be assigned to MONSANTO, and that accordingly, MONSANTO will replace BUCK's position as depositor. MONSANTO will accept this declaration.

20 3.1 Regarding the Present Situation of Foreign Applications

Both parties agree that presently the legal situation with respect to foreign applications claiming the priority of an earlier application for the purposes of which  
25 microorganisms have been deposited, and wherein a first applicant - here BUCK - and a subsequent applicant - here MONSANTO - are not one and the same legal person, at least concerning applications according to the EPC, results in significant legal uncertainty. These disadvantages may lead  
30 to entire loss of rights due to insufficient disclosure, as the European Patent Office presently requests that Depositor and Applicant must be as a matter of principle one and the same legal person.

[File UE8\BU29255.doc 27.12.1995  
Agreement BUCK/MONSANTO  
P4331134.7/PCT/DE95/01279]



i.e. filed by both, BUCK and MONSANTO, in order to avoid legal uncertainty for MONSANTO.

5 Furthermore, both parties agree that BUCK herewith just act as a formal applicant. That means BUCK has neither rights nor obligations with regard to these applications -although BUCK is listed as a co-applicant of foreign applications, or PCT-applications, respectively. Additionally, BUCK will also not bear any costs occurring with respect to these  
10 foreign applications.

BUCK undertakes to give optionally required signatures being in context with these foreign applications.

15 Moreover, both parties agree that MONSANTO is the sole legal person being authorized to dispose these foreign applications, i.e. there will be no need for rediscussion with BUCK for all decisions in context with these foreign applications.

20 Precautionarily, BUCK gives the following declaration concerning the redraft of Rule 28 EPC to be expected:

25 BUCK, in their capacity as Depositor of the deposited biological material of item 3 of the present agreement, herewith authorizes MONSANTO to make reference to the deposited biological material in their foreign applications, and gives without reservation and irrevocably their consent that the biological material deposited by  
30 BUCK, will be made accessible to the public in accordance with Rule 28 EPC.

Anytime, MONSANTO is entitled to request an assignment of MONSANTO/BUCK applications to MONSANTO. BUCK will agree to  
35 this assignment.

(File:UEB/BU29255.doc, 27.12.1995  
Agreement BUCK/MONSANTO  
PJ413134 7//PCT/DE95/01279



#### 4. Financial Obligation of MONSANTO

MONSANTO undertakes to transfer the non-recurring net amount of US\$20,000 (twenty thousand US Dollars) [hereinafter transfer amount] within ten days after signing of this Agreement by the last party to the agreement without deductions to the following account of BUCK:

Bank: Bayerische Vereinsbank Bad Reichenhall  
10 Bank Code No.: 710 200 72  
Account No.: 320 84 00

MONSANTO bears all bank fees necessary for this transfer.

15 MONSANTO furthermore undertakes to take over all costs for negotiating this Agreement by patent attorney Dr. Jürgen Kaiser, KUHNEN, WACKER & PARTNERS (hereinafter KWP), Alois-Steinecker-Str. 22, 85354 Freising, Germany. In this respect, KWP will separately invoice MONSANTO.

20

#### 5. Entering into Effect

Both parties agree that this Assignment Agreement enters into effect only with the crediting of the above-specified account of BUCK with the full transfer amount, even in case if already foreign applications have been filed for preserving the priority term.

25

#### 6. Applicable Law and Place of Venue

30

German law shall be applied to this Agreement. For all disputes arising from this Agreement, the Landgericht München I (District Court Munich I) shall have jurisdiction.

35

File: UEB\BU29255.doc, 27.12.1995  
 Agreement BUCK/MONSANTO  
 P443134 7/PCT/DE95/01279



### 7. Salvatorian Clause

Should any provision of this agreement be invalid or unenforceable or should the contract contain an omission, the remaining provisions shall be valid. In the place of an invalid provision, a valid provision is presumed to be agreed upon by the parties, which comes economically closest to the one actually agreed upon; the same shall apply in the case of an omission.

### 8. Language of the Agreement

This Agreement has been made in the German and English languages. Both versions are equally binding. In cases of doubt, however, the German version shall be relevant.

On behalf of BUCK

On behalf of MONSANTO *RF*

Name Hartmut H. Buck Hans J. Wirtz

Name Hendrik A. Verfaillie  
 Executive Vice President

Signature *Hans J. Wirtz*

Signature *Hendrik A. Verfaillie*

Place Bad Überkingen

Place St. Louis, Missouri *ml*

Date 16.12.1995

Date February 28, 1996

20 Annexes A and B

22.12.95 12:23

ID: Kuhn, Wacker u. Partner

FAX: +49-6161-930100 SEITE 5

[File: BRS\BU293.doc] 14.09.1995  
 Prioritätsrechtsübertragungserklärung



Anlage A:

### Prioritätsrechtsübertragungserklärung

Hiermit übertragen die BUCK-Werke GmbH & Co. Geislinger Str. 21, D-73337 Bad Überkingen ihr Prioritätsrecht aus der deutschen Patentanmeldung P 44 33 134.7 mit dem Titel "Verfahren zur Herstellung von Polyhydroxyfettsäuren sowie rekombinante Bakterienstämme zur Durchführung des Verfahrens", beim Deutschen Patentamt eingereicht am 16. September 1994 auf die MONSANTO COMPANY, 800 North Lindbergh Boulevard, St. Louis, Missouri 63167, USA.

### Declaration of the assignment to claim the right of priority

The BUCK-Werke GmbH & Co., Geislinger Str. 21, D-73337 Bad Überkingen are transferring herewith their right of priority from the German patent application P 44 33 134.7 having the title "Verfahren zur Herstellung von Polyhydroxyfettsäuren sowie rekombinante Bakterienstämme zur Durchführung des Verfahrens", which was filed with the German Patent Office on September 16, 1994 to the MONSANTO COMPANY, 800 North Lindbergh Boulevard, St. Louis, Missouri 63167, USA.

Für die BUCK-Werke:

Bad Überkingen, 14.09.1995

Name: Hartmut H. Buck

Hans J. Wirtz

Unterschrift:

22.12.'95 12:22

ID:Kuhnen, Wacker u.Partner

FAX: +49-391-330100 930103 SEITE 4

(File:BR&BU293.doc) 14.09.1995  
 Prioritätsrechtsübertragungsveriderung



## Anlage B:

Hiermit erklären die BUCK-Werke, Geislinger Str. 21, D-73337 Bad Überkingen gegenüber der DSM, Braunschweig, daß mit in Kraft treten des Übertragungsvertrages zwischen BUCK und MONSANTO, die MONSANTO COMPANY, 800 North Lindbergh Boulevard, St. Louis, Missouri 63167, USA uneingeschränkt Zugriff auf die von BUCK hinterlegten Stämme unter den DSM-Zugriffsnummern 9417 und 9418 zu gewähren ist.

Darüberhinaus tritt nunmehr MONSANTO an die Stelle von BUCK bezüglich der hinterlegten Stämme DSM 9417 und DSM 9418.

BUCK-Werke, Geislinger Str. 21, D-73337 Bad Überkingen declares herewith before DSM, Braunschweig that - as soon as the assignment contract between BUCK and MONSANTO is effective - MONSANTO COMPANY, 800 North Lindbergh Boulevard, St. Louis, Missouri 63167 has unrestricted access to the strains deposited by BUCK under the accession numbers 9417 and 9418.

Furthermore, MONSANTO takes over BUCK's position concerning the deposited strains DSM 9417 and DSM 9418.

Für BUCK:

Bad Überkingen, 14.09.1995

Name: Hartmut H. Buck

Hans J. Wirtz

Unterschrift:

*Hartmut Buck*

BEST AVAILABLE COPY

[File:UEBPR43011.doc, Translation of Assignment Agreement 04.09.1995  
P4433134.7, Mikrobielle Biopolymere  
Dr. Pries, Andreas, Bad Reichenhall / MONSANTO]



ORIGINAL

Assignment Agreement

between Dr. Andreas PRIES and MONSANTO

5

Preamble

Dr. Andreas Pries, Nonnerstr. 4, 83435 Bad Reichenhall, Germany (hereinafter PRIES) is stated as co-inventor in the German patent application No. P 44 33 134.7 having the title "Verfahren zur Herstellung von Polyhydroxyfettsäuren sowie rekombinanter Bakterienstämme zur Durchführung des Verfahrens" (Method for producing polyhydroxyfatty acids as well as recombinant bacterial strains for carrying out the method) (hereinafter DE-BUCK), filed with the German Patent Office on September 16, 1994. The proprietor of DE-BUCK is the BUCK-Werke GmbH & Co., Geislingerstr. 21, D-73337, Germany (hereinafter BUCK), of which PRIES is an employee. BUCK assigned the rights (hereinafter FOREIGN RIGHTS) for filing foreign applications, which claim the priority of DE-BUCK, to PRIES with the Declaration of Release dated June 6, 1995. PRIES accepted this assignment with declaration dated June 14, 1995.

PRIES wishes to assign his FOREIGN RIGHTS to the MONSANTO COMPANY, 800 North Lindbergh Boulevard, St. Louis, Missouri 63167, U.S.A. (hereinafter MONSANTO).

MONSANTO wishes to acquire the FOREIGN RIGHTS from PRIES.

30

1. Assignment of the FOREIGN RIGHTS

PRIES herewith assigns the FOREIGN RIGHTS in the DE-BUCK to MONSANTO which herewith accepts the assignment.

35

[File UEBPR43011.doc: Translation of Assignment Agreement 04.09.1995  
P4433134.7, Mikrobielle Biopolymere  
Dr. Pries, Andreas, Bad Reichenhau / MONSANTO]



MONSANTO will thus be entitled to file foreign applications in countries of its choice in its own name. In particular, MONSANTO will be entitled to file an application pursuant to the Patent Cooperation Treaty (PCT).

5 PRIES surrenders any rights to use the subject matter applied for in countries in which MONSANTO filed applications or in countries which were designated in a possible PCT application. This shall also apply mutatis  
10 mutandis to regional patent areas such as, for example, the countries united in the European Patent Convention (EPC).

Both parties agree that such foreign applications may at present only be filed as joint applications by MONSANTO and  
15 BUCK for reasons of legal certainty for MONSANTO, however, without any rights or obligations for BUCK.

All parties involved agreed upon filing a PCT-application with the German Patent Office, official file number  
20 PCT/DE95/01279 (Annex I), on 15.09.1995 in order to meet the priority term.

The costs of such foreign applications shall be borne by MONSANTO.

25

### 2. Re-assignment of the Priority Right Arising from DE-BUCK

PRIES affirms that he re-assigned the priority right from the DE-BUCK to BUCK. BUCK will make a declaration of  
30 assignment of the priority right in a separate agreement in favour of MONSANTO.

### 3. Necessary Signatures and Cooperation

35 PRIES undertakes to give the necessary signatures for all foreign applications, e.g. for the United States of



(File:UEB\PR43011.doc, Translation of Assignment Agreement 04.09.1995  
P4433134.7, Mikrobielle Biopolymere  
Dr. Pries, Andreas, Bad Reichenhall / MONSANTO



### 5. Entering into Effect

Both parties agree that this Assignment Agreement enters into effect only with the crediting of the above-specified  
5 account of PRIES with the full transfer amount.

### 6. Applicable Law and Place of Venue

German law shall be applied to this Agreement. For all  
10 disputes arising from this Agreement, the Landgericht  
München I (District Court Munich I) shall have  
jurisdiction.

### 7. Salvatorian Clause

15 Should any provision of this agreement be invalid or  
unenforceable or should the contract contain an omission,  
the remaining provisions shall be valid. In the place of an  
invalid provision, a valid provision is presumed to be  
20 agreed upon by the parties, which comes economically  
closest to the one actually agreed upon; the same shall  
apply in the case of an omission.

### 8. Language of the Agreement

25 This Agreement has been made in the German and English  
languages. Both versions are equally binding. In cases of  
doubt, however, the German version shall be relevant.

30

On behalf of MONSANTO

Dr. Andreas Pries

Name Hendrik A. Verfaillie  
Executive Vice President

35 Signature

Signature

(File:UEB\PR43011 doc. Translation of Assignment Agreement 04.09.1996  
P44331347 Mikrobielle Biopolymere  
Dr. Pries, Andreas, Bad Reichenhau / MONSANTO



Place *Bad Reichenhau* Place St. Louis, Missouri  
Date *29.12.1995* Date February 28, 1996

5

Annexes I and II

19-DEZ-1995 18:08

BUCK WERKE GMBH &amp; CO

+49 8651 70370 S.02

(Pat.BAWA-PR43013.doc) 18.12.95  
 Mikroschleife Steinhüchel  
 PCT/DE95/01279



Anlage II  
 Annex II

ERKLÄRUNG

Ich, Prof. Dr. Alexander Steinhüchel, erkläre hiermit, daß ich sämtliche für Auslandsanmeldungen erforderliche Unterschriften, welche auf der PCT-Anmeldung PCT/DE95/01279 basieren, leisten werde.

Mit dieser Unterschrift entstehen für mich keinerlei Verpflichtungen, und ich werde keinerlei Ansprüche gegen den oder die Anmelder geltend machen.

Diese Erklärung ist in deutsch und englisch abgefaßt. Beide Fassungen sind gleichermaßen verbindlich.

DECLARATION

I, Prof. Dr. Alexander Steinhüchel, declare herewith that I will give all necessary signatures for foreign applications, which are based on the PCT-application PCT/DE95/01279.

There will not result any obligations for me from my signature, and I will not assert any claims against the applicant.

The present Declaration has been drafted in German and English. Both versions are equally binding.

Münster, den 19.12.1995



Prof. Dr. Alexander Steinhüchel

GESAMT SEITEN 22

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 Mikroabgabe Biopolymer  
 PCT/DE95/01279



Anlage II  
 Annex II

ERKLÄRUNG

Ich, Dr. Matthias Liebergese-  
 sell, erkläre hiermit, daß  
 ich sämtliche für Auslandsan-  
 meldungen erforderliche Un-  
 terschriften, welche auf der  
 PCT-Anmeldung PCT/DE95/01279  
 basieren, leisten werde.

Mit dieser Unterschrift ent-  
 stehen für mich keinerlei  
 Verpflichtungen, und ich wer-  
 de keinerlei Ansprüche gegen  
 den oder die Anmelder geltend  
 machen.


Diese Erklärung ist in  
 deutsch und englisch abge-  
 faßt. Beide Fassungen sind  
 gleichermaßen verbindlich.

DECLARATION

I, Dr. Matthias Liebergese-  
 sell, declare herewith that I will  
 give all necessary signatures  
 for foreign applications,  
 which are based on the PCT  
 application PCT/DE95/01279.

There will not result any  
 obligations for me from my  
 signature, and I will not  
 assert any claims against the  
 applicant.

The present Declaration has  
 been drafted in German and  
 English. Both versions are  
 equally binding.

*Amth*  
 Göttingen, den 20.12.95  
  
 Dr. Matthias Liebergese

GESAMT SEITEN 22

## **PATENT ASSIGNMENT**

**THIS PATENT ASSIGNMENT ("Assignment")** is made and entered into as of this 14th day of May, 2001, by and between Metabolix, Inc., a Delaware corporation, having its principal place of business located at 303 Third Street, Cambridge, Massachusetts 02142 (hereinafter "Assignee"), and Monsanto Company, a Delaware corporation, having its principal place of business located at 800 North Lindbergh Boulevard, St. Louis, Missouri 63167 (hereinafter "Assignor").

**WHEREAS**, except as otherwise indicated, Assignor owns or has owned the patents and patent applications identified on Schedule A and Schedule B, attached hereto, some of which have lapsed or have been abandoned;

**WHEREAS**, Assignee acknowledges that some of the patents and patent applications listed on Schedule A and Schedule B have been abandoned or have lapsed; and

**WHEREAS**, Assignor and Assignee are parties to the Transaction Documents (as defined in a certain Asset Purchase Agreement of even date herewith entered into by the parties hereto) which provides for, among other things, the assignment of the identified patents and patent applications from Assignor to Assignee.

**NOW, THEREFORE**, in consideration of the mutual covenants and obligations contained herein and in the Transaction Documents, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties hereto agree as follows:

Assignor does hereby sell, assign, transfer, and set over unto said Assignee all of its right, title, and interest in and to the inventions described and/or claimed in, and the patents and patent applications relating to polyhydroxyalkanoates ("PHAs") identified on Schedule A and Schedule B, and any reissues or reexaminations thereof, and any continuing, continuation, continuation-in-part, divisional, foreign counterpart, and/or Patent Cooperation Treaty applications which may be hereinafter filed, and in and to any Letters Patent which may be granted and issued, in and for the United States of America and all foreign countries, including all treaty and convention rights, and the right to sue for present, past, and future infringement, enforce any rights and file any causes of action related thereto, either in law or equity, and to all income, royalties, fees, damages, and payments now or hereafter due or payable with respect thereto (hereinafter "Patents"). The identified Patents shall be held and enjoyed by said Assignee, its successors and assigns, to the fullest extent permissible under any applicable laws and ends of the terms for which all Letters Patents therefor may be granted, as fully and entirely as the same would have been held and enjoyed by the undersigned if this Assignment had not been made.

Assignor is hereby authorized to make application for and to receive Letters Patent, and to execute and deliver any and all papers that may be necessary or desirable to prosecute and maintain the same, and at any time, upon the reasonable request and at the expense of said Assignee, will execute and deliver any and all papers that may be necessary or desirable to

perfect the title to said inventions, patents and patent applications in Assignee, its successors, assigns or other legal representatives; and upon the reasonable request of said Assignee, will execute any additional applications for patents for said inventions, or any part or parts thereof, and for the reissue of any Letters Patent to be granted therefor; and will make all rightful oaths and do all lawful acts requisite for procuring the same or for aiding therein, without further compensation, but at the expense of said Assignee, its successors, assigns, or other legal representatives.

Notwithstanding the foregoing, Assignee shall prepare, execute and deliver any and all documents related to the recordation or legalization of any rights granted herein. And, as between the parties hereto, Assignee shall be solely obligated and responsible for any and all expenses associated with such recordation or legalization, including without limitation any preparation, execution and delivery expenses, and shall further be obligated and responsible for any expenses incurred in Assignee's efforts to obtain, establish or perfect ownership of right, title or interest in or to the Patents. Assignee agrees that it shall not record this Assignment in or with the United States Patent and Trademark Office or in or with any patent office foreign to the country of the United States of America. The assignment on Schedule C attached hereto serves as an exemplary form of instrument for recording purposes.

MONSANTO COMPANY  
800 North Lindbergh Boulevard  
St. Louis, Missouri 63167

Attest:

Michael J. [Signature]

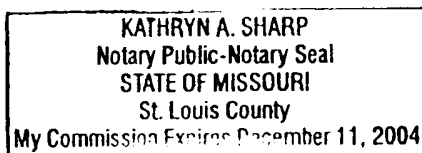
By: Dana L. Wesley  
Name: DANA L. WESLEY  
Title: DIRECTOR, M & A

STATE OF MISSOURI     )  
                                      ) ss.:  
COUNTY OF ST. LOUIS    )

On this 14<sup>th</sup> day of May, 2001, before me personally came Dana L. Wesley, to me personally known, who being duly sworn did say that he is the Director, M & A of Monsanto Company, that the seal affixed to the foregoing instrument is the corporate seal of said corporation, and that said instrument was signed and sealed on behalf of said corporation by authority of its Board of Directors; and said Dana L. Wesley acknowledged said instrument to be the free act and deed of said corporation.

Kathryn A. Sharp  
Notary Public

My commission expires \_\_\_\_\_



*Signature page to the Patent Assignment dated May 14, 2001*

Cambridge, Massachusetts 02142

By:

Names:

**Title:**

) SS.:

)

**MY COMMISSION EXPIRES  
JANUARY 24, 2008**

**Notary Public**

My commission expires \_\_\_\_\_

*Signature page to the Patent Assignment dated May 14, 2001*



## SCHEDULE A to the Patent Assignment

### Patents and Patent Applications

1. Title: **METHODS OF PHA EXTRACTION AND RECOVERY USING NON-HALOGENATED SOLVENTS**

Inventor(s): **Kurdikar, et al.**

U.S. Patent No.: **6,043,063**

Issued: **March 28, 2000**

Serial No.: **09/060,121**

Filed: **April 15, 1997**

<u>Country Code</u>	<u>App. Date</u>	<u>App. No.</u>	<u>Pub. Date</u>	<u>Pub. No.</u>	<u>Status</u>
WO	4/14/98	US9807484	10/22/98	WO9846782	Filed
EP	4/14/98	US9807484	2/2/00	09757588	Pending

2. Title: **DNA SEQUENCE USEFUL FOR THE PRODUCTION OF POLYHYDROXYALKANOATES**

Inventor(s): **Kruger, et al.**

U.S. Patent No.: **5,750,848**

Issued: **May 12, 1998**

Serial No.: **08/700,576**

Filed: **August 13, 1996**

<u>Country Code</u>	<u>App. Date</u>	<u>App. No.</u>	<u>Pub. Date</u>	<u>Pub. No.</u>	<u>Status</u>
US (reissue appln.)	5/12/00	09/570842			Pending
WO	8/13/97	US9714388	2/19/98	WO9806854	Filed
EP	8/13/97	979372737			Pending
JP	8/13/97	51005798	12/19/00	KOHYO200051681	Pending

3. Title: **HIGH TEMPERATURE PHA EXTRACTION USING PHA-POOR SOLVENTS**

Inventor(s): **Kurdikar, et al.**

U.S. Patent No.: **6,087,471**

Issued: **July 11, 2000**

Serial No.: **09/060,120**

Filed: **April 14, 1998**

WO	4/14/98	US9807658	10/22/98	WO9846783	Filed
EP	4/14/98	989156054	1/26/00	EPO973930	Pending

4. Title: **RHODOSPIRILLUM RUBRUM  
POLY- $\beta$ -HYDROXYALKANOATE SYNTHASE**  
 Inventor(s): **Clemente, et al.**  
 U.S. Patent No.: 5,849,894  
 Issued: December 15, 1998  
 Serial No.: 08/756,317  
 Filed: November 25, 1996  
 Priority: November 29, 1995

5. Title: **MACROMOLECULAR DEGRADATION OF NUCLEIC  
ACIDS**  
 Inventor(s): **Greer**  
 U.S. Patent No.: 5,627,276  
 Issued: May 6, 1997  
 Serial No.: 08/424,458  
 Filed: October 27, 1993

<u>Country Code</u>	<u>App. Date</u>	<u>App. No.</u>	<u>Pub. Date</u>	<u>Pub. No.</u>	<u>Status</u>
WO	10/27/93	GB9302208	5/11/1994	WO9410289	Filed
EP	10/27/93	939236246	9/6/95	0669970	Filed
AU	10/27/93	6280194	1/31/97	676026	Lapsed
BE	10/27/93	939236246	9/6/95	0669970	Issued
BR	10/27/93	PI93073216			Aband.
CA	10/27/93	2146455	5/11/94		Pending
DE	10/27/93	939236246	9/6/95	0669970	Issued
FI	10/27/93	951997			Pending
FR	10/27/93	939236246	9/6/95	0669970	Issued
GB	10/27/93	92225614			Aband.
GB	10/27/93	939236246	9/6/95	0669970	Issued
IT	10/27/93	939236246	9/6/95	0669970	Issued
JP	10/27/93	51081994	3/19/96	OP50241596	Pending
NO	10/27/93	951595			Aband.

6. Title: **POLYESTER COMPOSITION AND OLIGOMERS USEFUL  
AS COMPONENTS THEREOF-POLYMER**  
 Inventor(s): **Hammond, et al.**  
 U.S. Patent No.: 5,550,173  
 Issued: August 27, 1996  
 Serial No.: 08/432,116  
 Filed: November 4, 1993

<u>Country Code</u>	<u>App. Date</u>	<u>App. No.</u>	<u>Pub. Date</u>	<u>Pub. No.</u>	<u>Status</u>
WO	11/4/93	GB9302279	5/26/94	WO9411445	Filed
EP	11/4/93	939247045	8/30/95	0668893	Aband. AU
	11/4/93	6396294	12/18/97	684499	Lapsed
CA	11/4/93	2147982	5/26/94		Pending
FI	11/4/93	952163			Pending
GB	11/6/92	92233501			Aband.
JP	11/4/93	51182794	4/23/96	OP50372396	Pending
NO	11/4/93	19951749			Aband.

7. Title: **PROCESS FOR PREPARING FILMS AND COATINGS**  
Inventor(s): **Waddington**  
U.S. Patent No.: 6,111,006  
Issued: August 29, 2000  
Serial No.: 08/663,088  
Filed: July 7, 1997

<u>Country Code</u>	<u>App. Date</u>	<u>App. No.</u>	<u>Pub. Date</u>	<u>Pub. No.</u>	<u>Status</u>
WO	12/19/94	GB9402761	6/29/95	WO9517454	Filed
EP	12/19/94	959038514	12/11/96	0746585	Filed
BE	12/19/94	959038514	12/11/96	0746585	Issued
CA	12/19/94	2179522	6/29/95		Pending
DE	12/19/94	959038514	12/11/96	0746585	Issued
FR	12/19/94	959038514	12/11/96	0746585	Issued
GB	12/20/93	93259521			Aband.
GB	12/19/94	959038514	12/11/96	0746585	Issued
IT	12/19/94	959038514	12/11/96	0746585	Issued
JP	12/19/94	51725695	7/29/97	OP50744197	Pending

8. Title: **3-HYDROXYBUTYRATE POLYMERS**  
Inventor(s): **Collins, et al.**  
U.S. Patent No.: 4,477,654  
Issued: October 16, 1984  
Serial No.: June 29, 1982  
Filed: November 9, 1981

<u>Country Code</u>	<u>App. Date</u>	<u>App. No.</u>	<u>Pub. Date</u>	<u>Pub. No.</u>	<u>Status</u>
EP		813051869	5/26/82	0052459	Filed
EP	10/30/81	813051869	5/26/82	0052459	Issued
FR	10/30/81	813051869	5/26/82	0052459	Issued
GB	10/30/81	813051869	5/26/82	0052459	Issued

IT	10/30/81	813051869	5/26/82	0052459	Aband.
JP	11/18/81	18515381	3/2/94	1560494	Issued
JP	11/18/81	27883890	11/10/92	7034292	Issued
JP	11/18/81	33224391	1/26/93	OP1538393	Issued
NL	10/30/81	813051869	05/26/82	0052459	Lapsed
RU	11/17/81	335714505			Lapsed
SE	10/30/81	813051869	05/26/82	0052459	Lapsed
UA	10/28/93				Lapsed

9. Title: **3-HYDROXYBUTYRATE POLYMER COMPOSITION**  
 Inventor(s): **Herring, et al.**  
 U.S. Patent No.: **5,061,743**  
 Issued: **October 29, 1991**  
 Serial No.: **07/530,560**  
 Filed: **May 30, 1990**

<u>Country Code</u>	<u>App. Date</u>	<u>App. No.</u>	<u>Pub. Date</u>	<u>Pub. No.</u>	<u>Status</u>
EP		903055028	12/5/90	0400855	Filed
AT	5/21/90	903055028	12/5/90	0400855	Lapsed
BE	5/21/90	903055028	12/5/90	0400855	Issued
BR	5/30/90	PI9002561			Aband.
CA	5/30/90	2017885	11/30/90		Issued
CH	5/21/90	903055028	12/5/90	0400855	Lapsed
DE	5/21/90	903055028	12/5/90	0400855	Issued
DK	5/21/90	903055028	12/5/90	0400855	Lapsed
ES	5/21/90	903055028	12/5/90	0400855	Lapsed
FR	5/21/90	903055028	12/5/90	0400855	Issued
GB	5/30/89	89123889			Aband.
GB	5/21/90	903055028	12/5/90	0400855	Issued
GR	5/21/90	903055028	12/5/90	0400855	Lapsed
IN	5/25/90	507DEL90		177061	Lapsed
IT	5/21/90	903055028	12/5/90	0400855	Issued
JP	5/30/90	14124790	2/19/99	2888924	Issued
KR	5/30/90	781490			Lapsed
LU	5/21/90	903055028	12/5/90	0400855	Lapsed
MW	5/30/89	4690			Lapsed
NL	5/21/90	903055028	12/5/90	0400855	Lapsed
SE	5/21/90	903055028	12/5/90	040855	Lapsed
SZ	6/3/91	RP281991			Lapsed
TW	5/31/90	79104435	4/1/91		Lapsed
ZA	5/28/90	904073			Lapsed

10. Title: **COPOLYMER PRODUCTION**  
 Inventor(s): **Byrom**  
 U.S. Patent No.: **5,364,778**  
 Issued: **November 15, 1994**  
 Serial No.: **08/103,155**  
 Filed: **December 10, 1990**

<u>Country Code</u>	<u>App. Date</u>	<u>App. No.</u>	<u>Pub. Date</u>	<u>Pub. No.</u>	<u>Status</u>
EP		903131332	6/12/91	0431833	Filed
AU	12/7/90	6782790	6/3/93	637657	Issued
BE	12/4/90	903131332	6/12/91	0431833	Issued
BR	12/7/90	P190062310	8/18/98		Issued
CA	12/10/90	2031888	6/9/91		Issued
DE	12/4/90	903131332	6/12/91	0431833	Issued
FR	12/4/90	903131332	6/12/91	0431833	Issued
GB	12/8/89	89277941			Aband.
GB	12/4/90	903131332	6/12/91	0431833	Issued
IN	12/6/90	1235DEL90		177461	Aband.
JP	12/7/90	40094790	2/25/00	3036851	Issued
KR	12/8/90	2017590	7/9/99	223341	Issued
NZ	12/7/90	236394	8/23/93	236394	Issued
TW	12/12/90	79110458	1/12/93	NI58448	Issued
ZA	12/6/90	909816	11/27/91	909816	Issued

11. Title: **BIODEGRADABLE POLYESTER PLASTICIZER**  
 Inventor(s): **Montador, et al.**  
 U.S. Patent No.: **5,516,825**  
 Issued: **May 14, 1996**  
 Serial No.: **08/381,903**  
 Filed: **August 10, 1993**

<u>Country Code</u>	<u>App. Date</u>	<u>App. No.</u>	<u>Pub. Date</u>	<u>Pub. No.</u>	<u>Status</u>
WO	8/10/93	GB9301689	3/3/94	WO9404607	Filed
EP		949080568	5/31/95	0655077	Filed
AT	8/10/93	949080568	5/31/95	0655077	Issued
AU	8/10/93	4723893	3/6/97	676191	Issued
BE	8/10/93	94908568	5/31/95	0655077	Issued
CA	8/10/93	2142333	3/3/94		Pending
CH	8/10/93	94908568	5/31/95	0655077	Issued
DE	8/10/93	94908568	5/31/95	0655077	Issued
ES	8/10/93	950893			Pending
FR	8/10/93	94908568	5/31/95	0655077	Issued

GB	8/13/92	92171313			Aband.
GB	8/10/93	94908568	5/31/95	0655077	Issued
IT	8/10/93	94908568	5/31/95	0655077	Issued
JP	8/10/93	50599494	3/5/96	OP50208596	Pending
NL	8/10/93	94908568	5/31/95	0655077	Issued
NO	8/10/93	19950522	1/3/00	306864	Issued
SE	8/10/93	94908568	5/31/95	065507	Issued

12. Title: **POLYMER COMPOSITION COMPRISING A CRYSTALLIZABLE POLYMER STABILIZED IN AN AMORPHOUS OR INCOMPLETE STATE**

Inventor(s): **Clauss, et al**  
 U.S. Patent No. **5,599,891**  
 Issued: **February 4, 1997**  
 Serial No.: **08/407,030**  
 Filed: **September 28, 1993**

<u>Country Code</u>	<u>App. Date</u>	<u>App. No.</u>	<u>Pub. Date</u>	<u>Pub. No.</u>	<u>Status</u>
WO	9/28/93	GB9302014	4/14/94	WO9407940	Filed
EP	9/28/93	939210100	7/12/95	0662097	Allowed
AU	9/28/93	4829693	2/13/97	675664	Lapsed
BR	9/28/93	PI93071302			Aband.
CA	9/28/93	2144449	4/14/94		Pending
FI	9/28/93	951452			Pending
GB	9/28/92	92204478			Pending
GB	9/28/92	92204015			Pending
GB	9/28/92	93046514			Pending
JP	9/28/93	50882694	3/5/96	OP50208896	Pending
KR	9/28/93	70059511999			Aband.
NO	9/28/93	19951158			Aband.

13. Title: **PROCESS FOR SEPARATION OF SOLID MATERIALS FROM MICROORGANISMS**

Inventor(s): **Cumming, et al**  
 U.S. Patent No.: **5,622,847**  
 Issued: **April 22, 1997**  
 Serial No.: **08/433,501**  
 Filed: **November 12, 1993**

<u>Country Code</u>	<u>App. Date</u>	<u>App. No.</u>	<u>Pub. Date</u>	<u>Pub. No.</u>	<u>Status</u>
AT	11/12/93	939247824	7/13/95	0670891	Lapsed
AU	11/12/93	5429994	1/31/97	675991	Lapsed

BE	11/12/93	939247524	9/13/95	0670891	Issued
BR	11/12/93	P193074280			Aband.
CA	11/12/93	2147985	5/26/94	0670891	Aband.
DE	11/12/93	939247524	9/13/95	0670891	Issued
DK	11/12/93	939247524	9/13/95	0670891	Lapsed
ES	11/12/93	939247524	9/13/95	0670891	Lapsed
FI	11/12/93	952292			Pending
FR	11/12/93	939247524	9/13/95	0670891	Issued
GB	11/12/92	92237098			Aband.
GB	11/12/92	939247524	9/13/95	0670891	Issued
IT	11/12/92	939247524	9/13/95	0670891	Issued
JP	11/12/92	51186094	4/9/96	OP50313196	Pending
KR	11/12/92	7018941995			Aband.
LU	11/12/92	939247524	9/13/95	0670891	Lapsed
NL	11/12/92	939247524	9/13/95	0670891	Lapsed
NO	11/12/92	951867			Aband.
PT	11/12/92	939247524	9/13/95	0670891	Lapsed

14. Title: **POLYHYDROXYALKANOATES AND FILM FORMATION THEREFROM**

Inventor(s): **Waddington**  
 U.S. Patent No.: 5,534,616  
 Issued: July 19, 1996  
 Serial No.: 08/491,929  
 Filed: January 12, 1994

14a. Title: **POLYHYDROXYALKANOATES AND FILM FORMATION THEREFROM**

Inventor(s): **Waddington**  
 U.S. Patent No.: 5,578,382  
 Issued: November 26, 1996  
 Serial No.: 08/595,213  
 Filed: February 1, 1996

<u>Country Code</u>	<u>App. Date</u>	<u>App. No.</u>	<u>Pub. Date</u>	<u>Pub. No.</u>	<u>Status</u>
WO	1/12/94	GB9400056	7/21/94	WO9416000	Filed
EP	1/12/94	949042410	2/7/96	0695321	Filed
AU	1/12/94	5837694	9/11/97	681862	Lapsed
BE	1/12/94	949042410	2/7/96	0695321	Opp.
CA	1/12/94	2153807			Pending
JP	1/12/94	949042410	2/7/96	0695321	Opp.
GB	1/13/95	93008844			Aband.
GB	1/12/94	949042410	2/7/96	0695321	Opp.

IT	1/12/94	949042410	2/7/96	0695321	Opp.
JP	1/12/94	51583394	6/11/96	OP50541596	Pending

15. Title: **ADHESION PROCESS USING PHA**  
 Inventor(s): **Kemmish**  
 U.S. Patent No.: 5,711,842  
 Issued: January 27, 1998  
 Serial No.: 08/591,558  
 Filed: July 11, 1994

<u>Country Code</u>	<u>App. Date</u>	<u>App. No.</u>	<u>Pub. Date</u>	<u>Pub. No.</u>	<u>Status</u>
WO	7/11/94	GB9401496	1/26/95	WO9502649	Filed
EP	7/11/94	949205397	5/1/96	0708804	Filed
AU	7/11/94	7129294	1/15/98	685135	Lapsed
BE	7/11/94	949205397	5/1/96	0708804	Issued
CA	7/11/94	2166613	1/26/95	OPNONE	Pending
DK	7/11/94	949205397	5/1/96	0708804	Issued
FI	7/11/94	960158			Pending
GB	7/11/94	949205397	5/1/96	0708804	Issued
IT	7/11/94	949205397	5/1/96	0708804	Issued
JP	7/11/94	50439695	1/7/97	OP50015797	Pending
NO	7/11/94	19960153			Aband.

16. Title: **POLYESTER COMPOSITION**  
 Inventor(s): **Hammond, et al**  
 U.S. Patent No.: 5,753,782  
 Issued: May 19, 1998  
 Serial No.: 08/553,649  
 Filed: June 1, 1994

<u>Country Code</u>	<u>App. Date</u>	<u>App. No.</u>	<u>Pub. Date</u>	<u>Pub. No.</u>	<u>Status</u>
WO	6/1/94	GB9401184	12/8/94	WO9428061	Filed
EP	6/1/94	949170773	3/20/96	0701586	Und. App.
CA	6/1/94	2163444	12/8/94		Pending
GB	6/2/93	93113991			Aband.
JP	6/1/94	50042195	2/10/97	OP50145097	Pending

17. Title: **SEPARATION PROCESS**  
 Inventor(s): **Holmes, et al**  
 U.S. Patent No.: 4,910,145  
 Issued: November 11, 1994  
 Filed: November 11, 1994



<u>Country Code</u>	<u>App. Date</u>	<u>App. No.</u>	<u>Pub. Date</u>	<u>Pub. No.</u>	<u>Status</u>
EP		843075425	6/19/85	0145233	Filed
BE	11/1/84	843075425	6/19/85	0145233	Issued
CA	12/20/85	498397			Issued
CH	11/1/84	843075425	6/19/85	0145233	Issued
DE	11/1/84	843075425	6/19/85	0145233	Issued
GB	11/1/84	843075425	6/19/85	0145233	Issued
IT	11/1/84	843075425	6/19/85	0145233	Issued
JP	11/21/84	24697584	10/1/92	6163892	Issued
NL	11/1/84	843075425	6/19/85	0145233	Issued
SE	11/1/84	843075425	6/19/85	0145233	Issued

18. Title: **POLYMER PRODUCTION/POLYESTERS HAVING C8 AND/OR C10 MONOMER REPEAT UNITS**

Inventor(s): **Anderson, et al.**  
U.S. Patent No.: 5,296,362  
Issued: March 22, 1994  
Serial No.: 07/507,842  
Filed: February 17, 1998

<u>Country Code</u>	<u>App. Date</u>	<u>App. No.</u>	<u>Pub. Date</u>	<u>Pub. No.</u>	<u>Status</u>
EP		903031193	10/17/90	0392687	Filed
AU	1/31/99	5240590	2/18/93	634218	Lapsed
BR	1/31/99	PI90017323			Aband.
CA	8/2/96	2014238			Aband.
CH	1/31/99	903031193	10/17/90	0392687	Lapsed
DE	2/17/98	903031193	10/17/90	0392687	Issued
FR	2/17/98	903031193	10/17/90	0392687	Issued
GB	2/17/98	903031193	10/17/90	0392687	Issued
IN	12/19/94	319DEL90			Aband.
JP	1/14/00	9747490	12/11/90	OP29959090	Aband.
KR	2/27/95	49461990			Aband.
MW	3/4/93	MW2390			Aband.
NL	1/31/99	903031193	10/17/90	0392687	Lapsed
NZ	1/31/99	233296	10/11/92	233296	Lapsed
SZ	3/4/93	RP461991			Lapsed
TW	1/31/99	79102871	3/21/91		Lapsed
ZA	1/31/99	902399			Lapsed
ZW	11/23/93	4890			Lapsed

19. Title: **HV/HB COPOLYMER PRODUCTION**  
 Inventor(s): **Cox, et al.**  
 U.S. Patent No.: **6,080,562**  
 Issued: **June 27, 2000**  
 Serial No.: **07/949,524**  
 Filed: **May 24, 1991**

<u>Country Code</u>	<u>App. Date</u>	<u>App. No.</u>	<u>Pub. Date</u>	<u>Pub. No.</u>	<u>Status</u>
EP				0535012	Filed
AT	5/24/91	919102236	4/7/93	0535012	Lapsed
AU	5/24/91	7970891	9/15/94	652942	Lapsed
CA	5/24/91	2083695	11/26/91		Pending
DE	5/24/91	919102236	4/7/93	0535012	Issued
GB	5/25/90	919102236			Aband.
GB	5/24/91	90117771	4/7/93	0535012	Issued
IT	5/24/91	919102236	4/7/93	0535012	Issued
JP	5/24/91	50952491			Pending
KR	5/24/91	70296892			Aband.

20. Title: **PROCESS FOR THE RECOVERY OF  
POLYHYDROXYALKANOIC ACID**  
 Inventor(s): **Liddell**  
 U.S. Patent No.: **5,894,062**  
 Issued: **April 13, 1999**  
 Serial No.: **08/793,832**  
 Filed: **August 15, 1995**

<u>Country Code</u>	<u>App. Date</u>	<u>App. No.</u>	<u>Pub. Date</u>	<u>Pub. No.</u>	<u>Status</u>
WO	8/15/95	GB9501926	2/29/96	WO9606179	Filed
EP	8/15/95	959278979	6/4/97	0776372	Filed
BE	8/15/95	959278979	6/4/97	0776372	Issued
CA	8/15/95	2197783			Pending
DE	8/15/95	959278979	6/4/97	0776372	Issued
FI	8/15/95	970680			Pending
FR	8/15/95	959278979	6/4/97	0776372	Issued
GB	8/18/94	94166907			Aband.
GB	8/15/95	959278979	6/4/97	0776372	Issued
IT	8/15/95	959278979	6/4/97	0776372	Issued
JP	8/15/95	50785096	5/6/98	KOHYO50446098	Pending
KR	8/15/95				Aband.

21. Title: **PRODUCTION OF POLYMER COMPOSITION**  
 Inventor(s): **George, et al.**  
 U.S. Patent No.: **5,891,936**  
 Issued: **April 6, 1999**  
 Serial No.: **08/894,346**  
 Filed: **February 12, 1996**

<u>Country Code</u>	<u>App. Date</u>	<u>App. No.</u>	<u>Pub. Date</u>	<u>Pub. No.</u>	<u>Status</u>
WO	2/12/96	GB9600305	8/22/96	WO9625452	Filed
EP	2/12/96	969023456	12/3/97	0809669	Filed
BE	2/12/96	969023456		0809669	Issued
DE	2/12/96	969023456	12/3/97	0809669	Issued
FI	2/12/96	973364			Pending
FR	2/12/96	969023456	12/3/97	0809669	Issued
GB	2/16/95	95029807			
GB	12/21/95	95262812			
GB	2/12/96	969023456	12/3/97	0809669	Issued
IT	2/12/96	969023456	12/3/97	0809669	Issued
JP	2/12/96	52474596	1/12/99	KOHYO50047699	Pending

22. Title: **LATEX OF POLYHYDROXYALKANOATE**  
 Inventor(s): **George, et al.**  
 U.S. Patent No.: **5,977,250**  
 Issued: **November 2, 1999**  
 Serial No.: **08/875,976**  
 Filed: **February 9, 1996**

<u>Country Code</u>	<u>App. Date</u>	<u>App. No.</u>	<u>Pub. Date</u>	<u>Pub. No.</u>	<u>Status</u>
WO	2/9/96	GB9600284	8/15/96	WO9624682	Filed
EP	2/9/96	969019264	11/26/97	0808373	Filed
BE	2/9/96	969019264	11/26/97	0808373	Opp.
DE	2/9/96	969019264	11/26/97	0808373	Opp.
FI	2/9/96	973297			Pending
FR	2/9/96	969019264	11/26/97	0808373	Opp.
GB	2/9/95	95025219			Aband.
GB	2/9/96	969019264	11/26/97	0808373	Opp.
IT	2/9/96	969019264	11/26/97	0808373	Opp.
JP	2/9/96	52408896	1/19/99	KOHYO50061399	Pending

23. Title: **A METHOD FOR PREPARING A COMPOSTIBLE LAMINATE WITH POLYCAPROLACTONE AND A POLY 3-HYDROXYALKANOIC ACID**

Inventor(s): **Karhuketo, et al.**

Serial No.: **08/930,212**

Filed: **February 2, 1998**

**Under Appeal**

<u>Country Code</u>	<u>App. Date</u>	<u>App. No.</u>	<u>Pub. Date</u>	<u>Pub. No.</u>	<u>Status</u>
WO	4/4/96	GB9600819	10/10/96	WO9631347	Filed
EP	4/4/96	969082908	1/21/98	0819058	Pending
CA	4/4/96	2217640			Pending
GB	4/7/95	95072633			Aband.
JP	4/4/96	53009596			Pending

24. Title: **DISPERSIONS OF POLYHYDROXYALKANOATES IN WATER**

Inventor(s): **George**

Serial No.: **09/077,953**

Filed: **June 19, 2000**

**Abandoned**

<u>Country Code</u>	<u>App. Date</u>	<u>App. No.</u>	<u>Pub. Date</u>	<u>Pub. No.</u>	<u>Status</u>
WO	12/12/96	US9619886	6/19/97	WO9721762	Filed
EP	12/12/96	969448075			Pending
CA	12/12/96	2239980			Pending
GB	12/12/95	95253902			Aband.
JP	12/12/96	52223197	2/29/00	2000502375	Pending
MX	12/12/96	984764			Aband.

25. Title: **INCREASING THE PARTICLE SIZE OF POLYMERS**

Inventor(s): **George, et al.**

U.S. Patent No.: **5,798,440**

Issued: **August 25, 1998**

Serial No.: **08/374,662**

Filed: **July 13, 1993**

<u>Country Code</u>	<u>App. Date</u>	<u>App. No.</u>	<u>Pub. Date</u>	<u>Pub. No.</u>	<u>Status</u>
WO	7/13/93	GB9301465	2/3/94	WO9402622	Filed
AT	7/13/93	4576893	4/16/94	611787	Issued
BE	7/13/93	939160594	5/17/95	0652969	Issued

BR	7/13/93	PI93067569	12/8/98		Aband.
CA	7/13/93	2137794	2/3/94		Aband.
CH	7/13/93	939160594	5/17/95	0652969	Lapsed
DE	7/13/93	939160594	5/17/95	0652969	Issued
DK	7/13/93	939160594	5/17/95	0652969	Lapsed
ES	7/13/93	939160594	5/17/95	0652969	Lapsed
FI	7/13/93	950284			Pending
FR	7/13/93	939160594	5/17/95	0652969	Issued
GB	7/24/92	92157916			Aband.
GB	7/13/93	939160594	5/17/95	0652969	Issued
IE	7/13/93	939160594	5/17/95	0652969	Lapsed
IT	7/13/93	939160594	5/17/95	0652969	Issued
JP	7/13/93	50424794	10/12/95	OP50913195	Pending
KR	7/13/93	70475494			Aband.
NL	7/13/93	939160594	5/17/95	0652969	Lapsed
NO	7/13/93	19950241			Aband.
NZ	7/13/93	254186	11/26/96	254186	Lapsed
RU	7/13/93	95104935			Aband.
SE	7/13/93	939160594	5/17/95	0652969	Lapsed
ZA	7/16/93	935179	6/29/94	935179	Lapsed

26. Title: **MULTILAYER BIODEGRADABLE FILM**  
 Inventor(s): **Kemmish, et al.**  
 Serial No.: **08/647,909**  
 Filed: **May 30, 1996**

<u>Country Code</u>	<u>App. Date</u>	<u>App. No.</u>	<u>Pub. Date</u>	<u>Pub. No.</u>	<u>Status</u>
WO	11/29/94	GB9402609	6/8/95	WO9515260	Filed
EP	11/29/94	959021874	9/18/96	0731754	Filed
BE	11/29/94	959021874	9/18/96	0731754	Issued
CA	11/29/94	2177065			Pending
DE	11/29/94	959021874	9/18/96	0731754	Issued
FI	11/29/94	962251			Pending
FR	11/29/94	959021874	9/18/96	0731754	Issued
GB	11/30/93	93245124			Aband.
GB	11/29/94	959021874	9/18/96	0731754	Issued
IT	11/29/94	959021874	9/18/96	0731754	Issued
JP	11/29/94	51547295	6/24/97	OP50630397	Pending

27. Title: **COPOLYESTERS AND PROCESS FOR THEIR PRODUCTION**

<u>Country Code</u>	<u>App. Date</u>	<u>App. No.</u>	<u>Pub. Date</u>	<u>Pub. No.</u>	<u>Status</u>
EP	6/21/82	823032149	1/12/83	0069497	Filed
AU	5/24/82	8410882	4/16/87	560653	Issued
BE	6/21/82	823032149	1/12/83	0069497	Issued
CA	7/5/83	431821	7/30/87	1223687	Issued
CH	6/21/82	823032149	1/12/83	0069497	Issued
DE	6/21/82	823032149	1/12/83	0069497	Issued
FR	6/21/82	823032149	1/12/83	0069497	Issued
GB	6/21/82	823032149	1/12/83	0069497	Issued
IT	6/21/82	823032149	1/12/83	0069497	Issued
JP	7/7/82	11831682	6/25/92	3876392	Issued
JP	7/7/82	21877193	5/24/95	4762395	Issued
NL	6/21/82	823032149	1/12/83	0069497	Issued
NZ	6/23/82	201054	6/19/86	201054	Issued
NZ	6/23/82	213039		213039	Issued
SE	6/21/82	823032149	1/12/83	0069497	Issued

28. Title: **POLYHYDROXYALKANOATES OF NARROW MOLECULAR WEIGHT DISTRIBUTION PREPARED IN TRANSGENIC PLANTS**
- Inventor(s): **Asrar, et al.**  
U.S. Patent No.: 6,091,002  
Issued: August 15, 2000  
Serial No.: 08/912,205  
Filed: August 15, 1997
- US Divisional Filed: 11/15/99 Serial No.: 09/440400 Status: Allowed  
US Divisional Filed: 11/30/99 Serial No.: Not known Status: Pending
29. Title: **METHODS FOR THE BIOSYNTHESIS OF POLYESTERS**
- Inventor(s): **Gottschalk, et al.**  
Serial No.: 09/380,773  
Filed: September 3, 1999

<u>Country Code</u>	<u>App. Date</u>	<u>App. No.</u>	<u>Pub. Date</u>	<u>Pub. No.</u>	<u>Status</u>
WO	3/3/97	US9703994	9/11/98	WO9839453	Filed
EP	3/3/97	979159415	10/13/99	0958367	Pending

30. Title: **PHA COMPOSITIONS AND METHODS FOR THEIR USE  
IN THE PRODUCTION OF PHA FILMS**

Inventor(s): **Asrar, et al.**

Serial No.: 09/122,147

Filed: July 24, 1998

**CPA filed recently under Section 1.53(d)**

<u>Country Code</u>	<u>App. Date</u>	<u>App. No.</u>	<u>Pub. Date</u>	<u>Pub. No.</u>	<u>Status</u>
WO	7/24/98	US9815398	2/4/99	WO9905207	Filed
EP	7/24/98	989370895	5/3/00	0996670	Pending

31. Title: **MODIFIED POLYHYDROXYALKANOATES FOR  
PRODUCTION OF COATINGS AND FILMS**

Inventor(s): **Asrar, et al.**

U.S. Patent Nos.: 6,096,810; 6,201,083

Issued: August 1, 2000; March 13, 2001

Serial Nos.: 09/156,147; 09/609,878

Filed: September 18, 1998; July 5, 2000

<u>Country Code</u>	<u>App. Date</u>	<u>App. No.</u>	<u>Pub. Date</u>	<u>Pub. No.</u>	<u>Status</u>
WO	9/18/98	US9819461	3/25/99	WO9914268	Filed
EP	9/18/98	989471123	8/2/00	1023378	Allowed

32. Title: **PLASTICIZED POLYHYDROXYALKANOATE  
COMPOSITIONS AND METHODS FOR THEIR USE IN  
THE PRODUCTION OF SHAPED POLYMERIC ARTICLES**

Inventor(s): **Asrar, et al.**

U.S. Patent No.: 6,127,512

Issued: October 3, 2000

Serial No.: 09/179,271

Filed: October 31, 1997

<u>Country Code</u>	<u>App. Date</u>	<u>App. No.</u>	<u>Pub. Date</u>	<u>Pub. No.</u>	<u>Status</u>
WO	10/27/98	US9822753	5/14/99	WO9923146	Filed
EP	10/27/98	989562459	8/9/00	1025152	Pending

33. Title: **POLYMER BLENDS CONTAINING  
POLYHYDROXYALKANOATES AND COMPOSITIONS  
WITH GOOD RETENTION OF ELONGATION**

Inventor(s): **Asrar, et al.**  
U.S. Patent No.: **6,191,203**  
Issued: **February 20, 2001**  
Serial No.: **09/714,469; 09/179,780 (Divisional: Pending)**  
Filed: **November 16, 2000; October 31, 1997**

<u>Country Code</u>	<u>App. Date</u>	<u>App. No.</u>	<u>Pub. Date</u>	<u>Pub. No.</u>	<u>Status</u>
WO	10/27/98	US9822723	5/14/99	WO9923161	Filed
EP	10/27/98	US9822723			Pending

34. Title: **BIOSYNTHESIS OF MEDIUM CHAIN LENGTH  
POLYHYDROXYALKANOATES**

Inventor(s): **Poirier, et al.**  
Serial No.: **09/582,534**  
Filed: **June 27, 2000**

<u>Country Code</u>	<u>App. Date</u>	<u>App. No.</u>	<u>Pub. Date</u>	<u>Pub. No.</u>	<u>Status</u>
WO	1/5/98	US9800083	7/15/99	WO9935278	Filed
EP	1/5/98	US9800083			Pending

35. Title: **PHAE AND PHAC COMPONENTS OF POLY(HYDROXY  
FATTY ACID) SYNTHASE FROM THIOCAPASA**

Inventor(s): **Liebergessell, et al.**  
U.S. Patent No.: **6,011,144**  
Issued: **January 4, 2000**  
Serial No.: **08/809,286**  
Filed: **September 15, 1995**

<u>Country Code</u>	<u>App. Date</u>	<u>App. No.</u>	<u>Pub. Date</u>	<u>Pub. No.</u>	<u>Status</u>
US	10/18/99	09/420119			
US (Divisional)	02/01/01 (unconfirmed)				
WO	9/15/95	DE9501279	3/21/96	WO9608566	Filed
EP	9/15/95	959311499			Pending
CA	9/15/95	2203264			Pending
DE	9/16/94	P44331347			Pending



36. Title: **HYDROXY-TERMINATED  
POLYHYDROXYALKANOATES**

Inventor(s): **Asrar, et al.**  
 U.S. Patent No.: **5,994,478**  
 Issued: **November 30, 1999**  
 Serial No.: **09/063,256**  
 Filed: **April 20, 1998**

<u>Country Code</u>	<u>App. Date</u>	<u>App. No.</u>	<u>Pub. Date</u>	<u>Pub. No.</u>	<u>Status</u>
US (Divisional)	10/1/99	09/410708	3/20/01	6204341	Issued
US (Divisional)	4/20/98	(Not known)			
US (Divisional)	8/17/00	09/640641			Allowed
WO	4/20/98	US9807967	10/29/98	WO9848028	Filed
WO	6/14/99	US9913321	12/16/99	WO9964617	Filed
EP	4/20/98	989184924	2/9/00	0977882	Pending
EP	6/14/99	US9913321			Pending
EP (C-I-P)	6/14/99	99275100	4/4/01	1088093	Pending

36a. Title: **HYDROXY-TERMINATED  
POLYHYDROXYALKANOATES**

Inventor(s): **Asrar, et al.**  
 U.S. Patent No.: **6,156,852**  
 Issued: **December 5, 2000**  
 Serial No.: **09/096,797**  
 Filed: **April 29, 1997**

37. Title: **PRODUCTION OF POLYHYDROXYALKANOATE IN  
PLANTS**

Inventor(s): **Bright, et al.**  
 U.S. Patent No.: **5,502,273; 6,175,061**  
 Issued: **March 26, 1996; January 16, 2001**  
 Serial No.: **08/536,123; 08/536,123**  
 Filed: **September 28, 1994; September 29, 1995**  
 CPA Filed: **April 20, 2000**

<u>Country Code</u>	<u>App. Date</u>	<u>App. No.</u>	<u>Pub. Date</u>	<u>Pub. No.</u>	<u>Status</u>
WO	4/23/92	GB9200742	11/12/92	WO9219747	Filed
EP	4/23/92	929089209	4/6/94	0589898	Pending
AU	4/23/92	1579792	1/12/95	655816	Lapsed
	4/23/92	2109221			Pending

38. Title: **PRODUCTION OF POLYHYDROXYALKANOATE**  
 Inventor(s): **Liebergesell, et al.**  
 Serial No.: **08/178,257**  
 Filed: **July 15, 1992**  
**Petition to Revive Granted: February 20, 2001**

<u>Country Code</u>	<u>App. Date</u>	<u>App. No.</u>	<u>Pub. Date</u>	<u>Pub. No.</u>	<u>Status</u>
WO	7/15/92	GB9201291	2/4/93	WO9302194	Filed
EP	7/15/92	929145936	5/4/94	0594678	Pending
AU	7/15/92	2312792	9/15/96	671595	Lapsed
CA	7/15/92	2113432			Pending
GB	7/16/91	91152454			Aband.
JP	7/15/92	50266993			Pending

39. Title: **IMPROVED PRODUCTION OF  
 POLYHYDROXYALKANOATE USING  
 GRANULE-BINDING PROTEIN WHICH CONTROLS  
 GRANULE SIZE AND NUMBER**

Inventor(s): **Innis**  
 U.S. Patent No.: **6,022,729**  
 Issued: **February 8, 2000**  
 Serial No.: **08/702,870**  
 Filed: **July 11, 1995**

<u>Country Code</u>	<u>App. Date</u>	<u>App. No.</u>	<u>Pub. Date</u>	<u>Pub. No.</u>	<u>Status</u>
US	7/11/95	08/500735			Pending(?)
GB	7/18/94	94145067			Aband.

40. Title: **PREVENTION OF GELATION OF  
 POLYHYDROXYALKANOATE SOLUTIONS USING  
 SHEAR**

Inventor(s):  
 Serial No.: **60/188,440**  
 Filed: **March 10, 2000**

<u>Country Code</u>	<u>App. Date</u>	<u>App. No.</u>	<u>Pub. Date</u>	<u>Pub. No.</u>	<u>Status</u>
WO	3/5/01	Not known			Pending

**POLYHYDROXYALKANOATE COATINGS**  
 Inventor(s):  
 Serial No.: **60/053,724**  
 Issue: **2/15/00**

Filed: 7/25/97

<u>Country Code</u>	<u>App. Date</u>	<u>App. No.</u>	<u>Pub. Date</u>	<u>Pub. No.</u>	<u>Status</u>
WO	7/24/98	US9815149	2/4/99	WO9904948	Filed
EP	7/24/98	989359153	5/10/00	0998381	Pending

42. Title: **NUCLEATING AGENTS FOR  
POLYHYDROXYALKANOATES AND OTHER  
THERMOPLASTIC POLYESTERS AND THEIR  
PRODUCTION**

Inventor(s): Asrar et al.  
U.S. Patent No.: 5,973,100  
Issued: October 26, 1999  
Serial No.: 09/122440  
Filed: 7/24/98

<u>Country Code</u>	<u>App. Date</u>	<u>Pat. No.</u>	<u>Pub. Date</u>	<u>Status</u>
WO	07/24/98	WO9905208	2/4/99	
EP	07/24/98	0996671	2/4/99	Pending

## SCHEDULE B to the Patent Assignment

### **Patents and Patent Applications That Have Not Been Maintained**

1. Title: **POLYMER BLENDS AND COMPATIBILIZERS**  
Inventor(s): **Ballard, et al.**  
U.S. Patent No.: **5,478,892**  
Issued: **December 26, 1995**  
Status: **Lapsed**  
Serial No.: **08/295,626**  
Filed: **August 24, 1994**

Country Code	App. Date	App. No.	Pub. Date	Pub. No.	Status
WO	2/26/93	GB9300401	9/2/93	WO9317064	Filed
EP		939042644	12/21/94	0629219	Filed
AU	2/26/93	3572193	1/11/96	666710	Lapsed
BE	2/26/93	939042644	12/21/94	0629219	Lapsed
CA	2/26/93	2128435	9/2/93		Aband.
DE	2/26/93	939042644	12/21/94	0629219	Lapsed
FI	2/26/93	943930			Aband.
FR	2/26/93	939042644	12/21/94	0629219	Lapsed
GB	2/26/93	939042644	12/21/94	0629219	Lapsed
JP	2/26/93	51467093	5/18/95	0P50444995	Aband.
KR	2/26/93	70298194			Aband.
NO	2/26/93	19943157			Aband.
NZ	2/26/93	249218	1/26/96		Lapsed

2. Title: **POLYMER COMPOSITION CONTAINING  
POLYHYDROXYALKANOATE AND METAL  
COMPOUND**  
Inventor: **Hammond**  
U.S. Patent No.: **5,646,217**  
Issued: **July 8, 1997**  
Status: **Lapsed**  
Serial No.: **08/433,343**  
Filed: **November 4, 1993**

Country Code	App. Date	App. No.	Pub. Date	Pub. No.	Status
WO	11/4/93	GB9302280	5/26/94	WO9411440	Filed
EP	11/4/93	939247052	9/6/95	0669959	Aband.
FI	11/4/93	952162			Aband.
GB	11/6/92	92233519			Aband.

JP	11/4/93	51182894	4/16/96	OP54350096
NO	11/4/93	951766		

Aband.  
Aband.

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3. Title: **PROCESS OF POLYESTERS**  
 Inventor(s): **Liggat, et al.**  
 U.S. Patent No.: **5,789,536**  
 Issued: **August 4, 1998**  
 Status: **Lapsed**  
 Serial Nos.: **08/553,642**  
 Filed: **June 1, 1994**

Country Code	App. Date	App. No.	Pub. Date	Pub. No.	Status
WO	6/1/94	GB9401181	12/8/94	WO9428047	Filed
EP	6/1/94	949170740	3/20/96	0701580	Aband.
CA	6/1/94	2163552	12/8/94		Aband.
GB	6/2/93	93114023			Aband.
JP	6/1/94	52585594	10/29/96	OP51029396	Aband.

4. Title: **POLYMER COMPOSITIONS AND PROCESSES PRODUCED FROM HYDROXYALKANOIC ACID**  
 Inventor(s): **Greer, et al.**  
 U.S. Patent No.: **5,525,658**  
 Issued: **June 11, 1996**  
 Status: **Lapsed**  
 Serial Nos.: **08/374,663**  
 Filed: **July 15, 1995**

Country Code	App. Date	App. No.	Pub. Date	Pub. No.	Status
WO	7/15/93	GB9301492	2/3/94	WO9402541	Filed
EP		939160859	5/10/95	0651775	
AU	7/15/93	4578293			Lapsed
BE	7/15/93	939160859	5/10/95	0651775	Lapsed
CA	7/15/93	2137580	2/3/94		Aband.
FI		7/15/93	950285		Aband.
FR	7/15/93	939160859	5/10/95	0651775	Lapsed
GB	7/15/93	939160859	5/10/95	0651775	Lapsed
JP	7/15/93	50425994	10/12/95	OP50926595	Aband.
ZA	7/21/93	935288			Lapsed

5. Title: **POLYESTER COMPOSITION**  
 Inventor(s): **Liggat, et al.**  
 U.S. Patent No.: **5,789,536**  
 Issued: **August 4, 1998**  
 Status: **Lapsed**  
 Serial Nos.: **08/553,412**  
 Filed: **May 20, 1994**

Country Code	App. Date	App. No.	Pub. Date	Pub. No.	Status
WO	5/20/94	GB9401095	12/8/94	W09428070	Filed
EP	5/20/94	949156400	3/13/96	0700418	Aband.
AU	5/20/94	6727594	11/13/97	683466	Lapsed
CA	5/20/94	2162173	12/8/94		Aband.
FI	5/20/94	955645			Aband.
GB	5/24/93	93107126			Aband.
JP	5/20/94	50035895	11/5/96	OP51049896	Aband.
NO	5/20/94	954748			Aband.

6. Title: **PROCESSING OF POLYESTERS**  
Inventor(s): **Liggat, et al.**  
U.S. Patent No.: **5,874,040**  
Issued: **February 23, 1999**  
Status: **Lapsed**  
Serial Nos.: **08/892,311**  
Filed: **July 14, 1997**

Country Code	App. Date	App. No.	Pub. Date	Pub. No.	Status
WO	6/1/94	GB9401183	12/8/94	WO9428049	Filed
EP	6/1/94	949170765	3/20/96	0701582	Aband.
CA	6/1/94	2163553			Aband.
GB	6/2/93	93114007			Aband.
JP	6/1/94	50042095	2/20/97	OP50144997	Aband.

7. Title: **PROCESS FOR PREPARING FILMS AND COATINGS**  
Inventor(s): **Liddell, et al.**  
U.S. Patent No.: **5,691,174**  
Issued: **November 25, 1997**  
Status: **Lapsed**  
Serial Nos.: **08/530,332**  
Filed: **April 7, 1994**

Country Code	App. Date	App. No.	Pub. Date	Pub. No.	Status
WO	4/7/94	GB9400741	10/27/94	WO9424302	Filed
EP		949120273	1/31/96	0694074	Filed
AU	4/7/94	6434494	1/31/97	676035	Lapsed
BE	4/7/94	949120273	1/31/96	0694074	Lapsed
BR	4/7/94	PI94064520			Aband.
CA	4/7/94	2160564	10/27/94		Aband.
DE	4/7/94	949120273	1/31/96	0694074	Lapsed
FI	4/7/94	954836			Aband.
FR	4/7/94	9401194			Aband.
GB	4/7/94	9401194			Aband.
JP	4/7/94	9401194			Aband.
NO	4/7/94	9401194			Aband.
SE	4/7/94	9401194			Aband.
UK	4/7/94	9401194			Aband.

IT	4/7/94	949120273	1/31/96	0694074	Lapsed
JP	4/7/94	52287394	9/24/96	OP50888196	Aband.
MX	4/13/94	942657			Aband.
NO	4/7/94	954088			Aband.
ZA	4/12/94	942515			Lapsed

8. Title: **COPOLYMER PRODUCTION**  
 Inventor(s): **Anderson, et al.**  
 U.S. Patent No.: **5,264,546**  
 Issued: **November 23, 1993**  
 Status: **Lapsed**  
 Serial Nos.: **07/870,480**  
 Filed: **April 17, 1992**

Country Code	App. Date	App. No.	Pub. Date	Pub. No.	Status
EP		903042679	11/7/90	0396289	Lapsed
AT	4/20/90	903042679	11/7/90	0396289	Lapsed
AU	4/27/90	5452390	10/8/92	629632	Lapsed
BE	4/20/90	903042679	11/7/90	0396289	Lapsed
BR	9/2/90	PI90020600			Aband.
CA	5/1/90	2015830			Aband.
CH	4/20/90	903042679	11/7/90	0396289	Lapsed
DE	4/20/90	903042679	11/7/90	0396289	Lapsed
ES	4/20/90	903042679	11/7/90	0396289	Lapsed
FR	4/20/90	903042679	11/7/90	0396289	Aband.
GB	4/20/90	903042679	11/7/90	0396289	Lapsed
IN	4/25/90	404DEL90	5/30/98	0396289	Lapsed
IT	4/20/90	903042679	11/7/90	0396289	Lapsed
JP	5/2/90	11668590	2/28/91	OP4708291	Lapsed
KR	5/1/90	61931990			Aband.
LU	4/20/90	903042679	11/7/90	0396289	Lapsed
MW	4/26/90	MW4090			Lapsed
NL	4/20/90	903042679	11/7/90	0396289	Lapsed
NZ	4/26/90	233,452			Lapsed
SE	4/20/90	903042679	11/7/90	0396289	Lapsed
TRAN	4/27/90	900038			Lapsed
TW	5/15/90	79103931	10/1/91		Lapsed
ZA	4/24/90	903108			Lapsed

9. Title: **COPOLYESTERS AND METHODS OF THEIR PRODUCTION**  
 Inventor(s): **Cox, et al.**  
 U.S. Patent No.:  
 Issued:  
 Status:  
 Serial No.: **08/809,946**

Filed:

September 21, 1995

Country Code	App. Date	App. No.	Pub. Date	Pub. No.	Status
WO	9/21/95	GB9502257	3/28/96	WO9609402	Filed
EP	9/21/95	959321019	7/16/97	0783587	Aband.
CA	9/21/95	2200473			Aband.
FI	9/21/95	971199			Aband.
GB	9/22/95	94190824			Aband.
JP	9/21/95	51070096	6/16/98	KOHYO50601298	Aband.
KR	9/21/95	7018681997			Aband.
MX	9/21/95	972206	12/1/97		Aband.
NO	9/21/95	19971279			Aband.

10. Title: **HV/HB COPOLYMER PRODUCTION**  
 Inventor(s): **Cox, et al.**  
 U.S. Patent No.: **6,080,562**  
 Issued: **June 27, 2000**  
 Status: **Issued**  
 Serial No.: **07/949,524**  
 Filed: **May 24, 1991**

Country Code	App. Date	App. No.	Pub. Date	Pub. No.	Status
WO	10/19/92	EP9100978	12/12/91	WO9118995	Filed
EP	9/13/95	919102236	4/7/93	0535012	Filed
AT	5/24/91	919102236	4/7/93	0535012	Lapsed
AU	5/24/91	7970891	9/15/94	652942	Lapsed
CA	5/24/91	2083695	11/26/91		Pending
DE	5/24/91	919102236	4/7/93	0535012	Issued
GB	5/24/91	919102236	4/7/93	0535012	Issued
IT	5/24/91	919102236	4/7/93	0535012	Issued
JP	5/24/91	50952491			Pending
KR	5/24/91	70296892			Aband.
NL	5/24/91	919102236	4/7/93	0535012	Lapsed

11. Title: **ALIPHATIC POLYESTER COMPOSITION**  
 Inventor(s): **Lehrle, et al.**  
 U.S. Patent No.: **6,005,066**  
 Issued: **December 21, 1999**  
 Status: **Lapsed**  
 Serial No.: **08/768,030**  
 Filed: **June 13, 1995**

EP	6/13/95	959244047	4/2/97	0535012	Aband.
CA	6/13/95	2192688			Aband.



GB	6/13/94	94117926				Aband.
JP	6/13/95	50180096	5/6/98	KOHYO50458398		Aband.

12. Title: **PROCESS OF RECOVERING POLYMERS OF HYDROXYALKANOIC ACIDS**

Inventor(s): **George, et al.**  
 U.S. Patent No.: **5,952,460**  
 Issued: **September 14, 1999**  
 Status: **Lapsed**  
 Serial No.: **08/793,019**  
 Filed: **August 15, 1995**

Country Code	App. Date	App. No.	Pub. Date	Pub. No.	Status
WO	8/15/95	GB9501925	2/29/96	WO9606178	Filed
EP	8/15/95	959278961	6/4/97	0776371	Aband.
CA	8/15/95	2197782			Aband.
FI	8/15/95				Aband.
GB	8/18/94	94166915			Aband.
JP	8/15/95	50784996	5/6/98	50445998	Aband.
KR	8/15/95	7010621997			Aband.
MX	8/15/95	971249			Aband.
NO	8/15/95	19970738			Aband.

13. Title: **POLYESTER COMPOSITION**

Inventor(s): **Blanshard, et al.**  
 U.S. Patent No.: **5,760,170**  
 Issued: **June 2, 1998**  
 Status: **Lapsed**  
 Serial No.: **08/809,316**  
 Filed: **September 8, 1995**

Country Code	App. Date	App. No.	Pub. Date	Pub. No.	Status
WO	9/8/95	GB9502150	3/14/96	WO9607697	Filed
EP	9/8/95	959313016	6/25/97	0779910	Aband.
CA	9/8/95	2199476			Aband.
FI	9/8/95	970984			Aband.
GB	9/9/94	94181740			Aband.
JP	9/8/95	50932896			Aband.
KR	9/8/95	7015671997			Aband.
MX	9/8/95	971818			Aband.
NO	9/8/95	971055			Aband.

Inventor: **Brunger**  
 U.S. Patent No.: **5,560,962**

Issued: October 1, 1996  
 Status: Lapsed  
 Serial No.: 08/204,263  
 Filed: November 11, 1992

Country Code	App. Date	App. No.	Pub. Date	Pub. No.	Status
WO	11/11/92	GB9202078	5/27/93	WO9310308	Filed
EP	11/11/92	929229011	9/7/94	0613510	Filed
BE	11/11/92	929229011	9/7/94	0613510	Lapsed
DE	11/11/92	929229011	9/7/94	0613510	Lapsed
FR	11/11/92	929229011	9/7/94	0613510	Lapsed
GB	11/11/92	929229011	9/7/94	0613510	Lapsed
IT	11/11/92	929229011	9/7/94	0613510	Lapsed
JP	11/11/92	50906593	2/2/95	OP50110895	Aband.

15. Title: **PROCESS FOR THE MICROBIOLOGICAL PRODUCTION OF PHA POLYMERS**

Inventor(s): **Naylor, et al.**  
 U.S. Patent No.: 5,871,980  
 Issued: February 16, 1999  
 Status: Lapsed  
 Serial No.: 08/894,347  
 Filed: February 9, 1996

Country Code	App. Date	App. No.	Pub. Date	Pub. No.	Status
WO	2/9/96	GB9600293	8/22/96	WO9625509	Filed
EP	2/9/96	969019322	12/3/97	0809706	Aband.
FI	8/15/97	973365			Aband.
GB	2/17/95	95031746			Aband.
JP	2/9/96	52474296	1/6/99	KOHYO50000899	Aband.